55	7.3.A	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required. GI strip				
55	7.3.A.1	25x3mm	Mtr	77	50	3850
55	7.3.A.5	600x600x3mm GI Plate	Each	784	8	6272
55	7.3.B	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required. 25x3mm Copper strip				
55	7.3.B.6	25x3mm	Mtr	523	50	26150
55	7.4	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A.				
55	7.4.2	4 core 10 sqmm	Mtr	118.8	30	3564
55	7.4.4	4 core 16 sqmm	Mtr	140.4	25	3510
56	7.4.9	3.5 core 95 sqmm	Mtr	445.2	150	66780
61	7.8.B	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.On wall /Structure				
61	7.8.B.6	6 sqmm to 16 sqmm	Mtr	31	55	1705
61	7.8.B.7	25 sqmm to 75 sqmm	Mtr	34.8	250	8700
61	7.9	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7)				
62	7.9.1	In soil (ordinary)	Mtr	78	65	5070
62	7.9.4	Asphalt cutting	Mtr	117	10	1170
62	7.1	Providing and filling sand in excavated trench to cover already laid UG cable to a depth of 150mm all-round the cable.	Mtr	103	65	6695
62	7.14	Supplying and fixing of heavy duty cable glands suitable for UG cable of 1.1 KV class (metal only)				
62	7.14.2	25mm dia	Each	86	2	172
62	7.14.3	32mm dia	Each	122	2	244
63	7.19	Supplying and fixing 2mm thick perforated cable tray with powder coated paint on existing MS angle support using necessary GI bolts/nuts and washer or welding as required.				
63	7.19.2	300x50mm	Mtr	547	10	5470
63	7.2	Supply and laying double walled corrugated (DWC) HDPE Pipe including all necessary connecting Sockets/Couplings/Tees/Bends/End-caps of same materials in existing trench as per IS 14930 part -II suitable for drawing underground cables.				
63	7.20.1	40mm OD / 32mm ID	Mtr	98	100	9800
63	7.20.2	50mm OD / 38mm ID	Mtr	151	75	11325
64	7.21	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.				
64	7.21.1	1.5 sqmm	Each	2	100	200
64	7.21.2	2.5 sqmm	Each	3.12	80	249.6
64	7.21.3	4 sqmm	Each	6.25	24	150
64	7.21.4	6 sqmm	Each	6.25	12	75
64	7.21.5	10 sqmm	Each	7.65	32	244.8
64	7.21.6	16 sqmm	Each	11.31	8	90.48
64	7.21.8	35 sqmm Long Barrel	Each	35.72	8	285.76
64	7.22.A	Supplying and running GI/Copper conductor for grounding and (along with other wires in conduit system of wiring) using necessary suitable size clamps, nails, guttas/spacers etc. GI Wire				
64	7.22.A.3	8 SWG	Mtr	19.5	200	3900
		TOTAL				193848.64
	9.00	**FANS & AIR CONDITIONERS**				
78	9.2	Supplying of 1440rpm heavy duty exhaust fan with bracket blades suitable to operate on 230V 50Hz, AC Supply complete.				
78	9.2.2	15" Sweep (450mm)	Each	4394	4	17576
78	9.3.1	Supplying capacitor type ceiling fan complete with down rod blades, shackle, canopies etc., for operation on 230 volts, 50 cycles. Single phase AC supply conforming to ISS-374-1979 and with double ball bearing system. 48" Sweep (1200mm)				
78	9.3.1.2	REGULAR model	Each	2350	23	54050
		TOTAL				71626
	11.00	**NETWORKING & TELECOMMUNICATION**				

85	11.2	Supplying and drawing PVC flexible one pair telephone unarmoured tinned copper cable.				
85	11.2.2	2Pair	Rmt.	13	100	1300
		TOTAL				**1300**
	12.00	**UPS, VOLTAGE STABILIZERS, BATTERIES & ACCESSORIES**				
88	12.2	Supplying, erecting, testing & commissioning of OFF-LINE UPS system suitable for operation on 230V, 50Hz, A/C supply, with all accessories complete and Excluding batteries and wiring complete.				
88	12.2.7	5 KVA OFF LINE UPS Two Hour back up Excluding 6x 150Ah batteries	Each	50293	1	50293
88	12.3	Supplying, installation, testing & commissioning of 12Volts ..AH batteries in poly propylene container for D.G. sets. Low maintenance batteries, plate type.				
88	12.3.4	150AH capacity. Acid batteries	Each	20600	6	123600
		TOTAL				**173893**
	13.00	**DIESEL GENERATOR SET**				
91	13.1	Supplying, erection, testing and commissioning of .....KVA Diesel Generating Set on existing CC platform Comprising of Diesel Engine Developing ..... BHP @ 1500 RPM confirming to BS 5514.The engine should be turbocharged, Air/water cooled with 10 % over load for 1hour in every 12 hours of operation coupled to suitable capacity alternator rated at 415V, 0.8 PF(lag) 50 Hz, 3 phase, 4 wire system, confirming to BS 5000/IS 4722. The alternator shall be of brushless type ,Screen protected, revolving field, Mounted on suitable Channel Iron Base Frame, Complete with suitable capacity Fuel Tank, required nos. of Batteries of 12/24V as per requirement, Acoustic enclosure as per CPCB Approved Norms.				
91	13.1.1	62.5kva/50kw	Each	572400	1	572400
91	13.2	Supply, Erection, testing and commissioning of AMF panel suitable for .....KVA DG set. The panel is of cubical type base/floor mounting control panel with hinged doors, undrilled bottom gland plate, aluminum Bus Bar with the accommodation for .....amps 4 pole contactor for alternator with thermal O/L relay,..... Amps 4 pole contactor for mains, HRC fuse for short circuit protection, Microprocessor based AMF module with supply failure timer, Restoration timer, 3 impulse automatic engine start/stop logic, Mains/generator voltage, ...capacity bypass switch and frequency sensing, PCC 1301 controller with water temperature/Lube oil pressure/ engine speed, Voltage/ampere/Frequency/ KVA, Running-hour count, No of starts, Fault indication, over /under speed, Fails to start, Low oil pleasure, High engine temperature, Under/over voltage, over current, Earth fault relay, with indications for Mains on, Load on Mains, Battery charger on Push buttons AMf module by pass Mode, Battery charger unit with inbuilt Auto/Manual and Flat/Boost facility.				
91	13.2.1	Up to 62.5kva	Each	92460	1	92460
		TOTAL				**664860**
	15.00	**DIGITAL AUDIO CONFERENCE SYSTEM**				
100	15.2	Conference mic's :Table top Models				
100	15.2.1	Supply , installation, testing and commissioning of Table top model chairman unit with gooseneck mic with ring LED and interconnection cable and out sockets for linking next unit with talk and priority switch aluminum/PVC housing and headphone sock	No	12400	1	12400
100	15.4	Conference Cables				
100	15.4.1	Supply, installation, testing and commissioning of, 9 core multistrand high gain low loss cable with required end connectors 10meter to connect between the delegate unit and controller including charges for labour, lead and lifts, loading and unloading	No	220	2	440
100	15.5	Ceiling Speakers				
100	15.5.1	Supply, installation, testing and commissioning of compact ceiling speaker with Back Can power handling up to 6 watt RMS/ watt /100volt@ 1456 ohms single channel. selectable taping 5" LF driver and tweeter	No	1450	5	7250
101	15.5.3	Supply, installation, testing and commissioning of compact Wall mount speaker with power handling up to 40Watt RMS 0/100volt@ 1456 ohms single channel. selectable taping Specs: Power handling : 15 to 30 watt Frequency response : 80 Hz t0 18khz Spl:	No	6890	4	27560
101	15.6	Amplifiers				
101	15.6.1	Supply, installation, testing and commissioning of booster amplifier with power handling of 250 to 300 watt RMS 4ohms Dual and 100/70 volt output on bridge mode single channel Rack mountable Specs: frequency response : 20 htz to 20khtz	No	27550	1	27550
101	15.7	Audio Mixers				
101	15.7.2	Supply, installation, testing and commissioning of 12Channel 12mic/line 2-4 Stereo input mixer with built in 3 to 4 band semi parametric eq 2 bus or 4 bus and 2 to 4 aux outs 2 stereo return. Specs: frequency response of 20 htz to 20 kHz with THD o	No	22400	1	22400
102	15.1	System Racks Supply, installation, testing and commissioning of 19" 20/15U 580 Depth system rack with Front glass door , back door with heavy duty wheels with cable manager and power strip and termination plates for signal and speaker out system.	No	12800	1	12800

102	15.11	Speaker Cables Supply, installation, testing and commissioning professional grade 2.5 sq mm TIN coated low loss 2 core multi strand Oxidation Free speaker cable including, lead and lifts, loading and unloading, cost of conveyance for all the materials with the accessories.	meter	38	750	28500
102	15.12	Connectors and I/C Cables Supply, installation, testing and commissioning of professional grade audio connectors for inter connection cables with in the rack and other units as well auditorium as required including charges for labour, lead and lifts, loading and unloading, cost of conveyance for all the materials with the accessories required for completion as per the detailed specifications. Neutrick/SR/Amphenol/nT/MX/Equivalent.	Set	240	1	240
		TOTAL				**139140**
	17.00	**FIXING CHARGES**				
108	17.7	Fixing all types and all capacities of fluorescent / false ceiling / spot light / CFL / LED fittings indoor on the wall / ceiling / rafters / girders using 23/0.0076" twin twisted PVC insulated wires, required Nos of round blocks and clamps.				
108	17.7.1	On wall / ceiling / Rafter / Girders	Each	98	386	37828
109	17.9	Fixing a ceiling / wall mounting fan of all capacities and all types, with necessary clamps and 'S' hook made out of 15mm dia MS rod, with 5 amps. ceiling rose of approved quality with necessary length of 23 / 0.0076 inch PVC insulated twin twisted wire of approved quality, mounted on a suitable size wooden board and wired.	Each	237	23	5451
109	17.12	Fixing one exhaust fan in the nitch already left in the wall with bolts and nuts and 5 amps. ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire.	Each	412	4	1648
		TOTAL				**44927**
		TOTAL AMOUNT				
		BESCOM CHARGES	EACH	50000	1	**50000**
		GRAND TOTAL AMOUNT				**3,398,359**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2014-2015 and approved rates.

Assistant Engineer
Yelahanka Project
BBMP

Assistant Executive Engineer
Yelahanka Project
BBMP

Executive Engineer
Yelahanka Project
BBMP

24/5

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK :CONSTRUCTION OF INDOOR STADIUM WITH ALL AMENITIES AT SAHAKARNAGAR IN WARD NO.08 KODIGEHALLI, KODIGEHALLI SUB DIVISION

6) PLUMBING WORKS

						Est.Cost.Rs.	944216
Sl No	**Description**	**Units**	**Rate(RS.)**	**Area Weightage 8%**	**Total Rate (RS.)**	**Quantity**	**Amount (RS.)**
DRAINAGE WORK							
1	KSRB 12-5.1 : Constructing brick **masonry circular type manhole 1.67 m** internal dia at bottom 1.67m deep and 0.56m dial at top with table moulded non-modular bricks of 50 class designation 50 in cement mortar 1:4, inside cement plastered 12mm thick with cement mortar 1:3, finished with a floating coat of neat cement, foundation concrete M 10 using 40mm and downsize granite metal and making necessary channel in cement concrete M 15 with 20mm and downsize granite metal finished with a floating coat of neat cement, with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter confirming IS:12592, total weight cover and frame to be not less than 182 kg, fixed in cement concrete 1:2:4, 20mm and downsize broken granite metal, providing and removing centering, shuttering including cost of materials, labour charges, HOM of machineries complete as per specifications. (Excavation, footrests and 12mm thick cement plaster on the external surface shall be seperately).specification no. KBS 12.4	Nos	21125.00	1,690.00	22,815.00	1	22815
2	KSRB 12-6.3: Providing cast iron footrest and fixing in manhole with M 10 cement concrete block of 20x20x10cms, using 20mm and down size metal of size including cost of materials, labour charges, HOM of machineries complete as per specifications. specification no. KBS 12.4.6	Nos	230	18.40	248.40	10	2484
3	KSRB 12-7.1: Making connection of drain or sewer line of size 160 to 200mm external dia with existing manhole including breaking into and making good the walls, floors with cement concrete M 15 with 20mm and down size granite metal, cement plastered on both sides of mix 1:3, finished with a floating coat of neat cement and making necessary channels for the drain, including cost of materials, labour charges, HOM of machineries complete as per specifications. Specification no. KBS	M	2,276.00	182.08	2,458.08	10	24580.8

4	KSRB 12-8.1: Constructing brick masonry inspection chamber 600x600mm and 450mm depth, (clear inside dimension) for single pipeline, using table moulded non- modular bricks of class designation 50 in cement mortar 1:5, C.I cover with frame (light duty) 455x610mm internal dimensions, total weight of cover with frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg) R.C.C top slab with cement concrete M 15 with 20mm and down size granite metal, foundation concrete M5 with 40mm and down size granite metal inside plastering 12mm thick with cement mortar 1:3, finish smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, HOM of machineries complete as per specifications. Specification no. KBS	Nos	8,954.00	716.32	9,670.32	4	38681.28
5	Providing and fixing unplasticised PVC pipes 10.00 kg/sq.cm working pressure chemp plast/wavin or equivalent make with pipe fittings, clips, making good the floor , including cost of all materials, labour charges, HOM of equipment and testing complete as per specifications.						
a	do- with 90mm outer dia	m	481	38.48	519.48	75	38961
b	do- with 110mm outer dia	m	688	55.04	743.04	65	48297.6
c	do- with 160mm outer dia	m	1,450.00	116.00	1,566.00	50	78300
				TOTAL:			254119.68

SANITARY WORK

Sl No	Description	Units	Rate(RS.)	Area Weightage 8%	Total Rate (RS.)	Quantity	Amount (RS.)
1	KSRB 11-5 : Providing and fixing white vitreous china clay, **water closet europeon type** (pedestal type, p-trap) with black solid plastic seat and lid, C.P brass hinges, rubber buffers. 10 litre low level,P.V.C flushing cistern (all are approved make) with fittings, C.I / M.S brackets , 40mm diameter flush pipe fittings and clamps, overflow arrangements with specials and 25mm mosquito proof coupling of approved design,painting of fittings and brackets, cutting and making good the wall and floor wherever required , including cost of materials, labour complete as per specifications. Specification no.KBS 11	Each	5,130.00	410.40	5,540.40	20	110808

2	KSRB 11-9.2 : Providing and fixing white vitreous china clay,flat back or half stall **urinal basin** of size 580x380x350mm in the range of two with 7.5 litres P.V.C automatic flushing cistern, C.I / M.S brackets ,standard flush pipe and C.P brass spreaders with brass unions and G.I clamps, C.I trap with outlet grating and other couplings in C.P brass, painting of fittings and brackets, cutting and making good the wall and floor wherever required , including cost of materials, labour complete as per specifications.Specification No. KBS 11	Unit	8,315.00	665.20	8,980.20	10	89802
3	KSRB 11.11.1 : Providing and fixing white vitreous china clay,flat back **wash basin** size 630x450mm with a pair of 15mm C.P brass pillar taps with C.I / M.S brackets ,32mm C.P brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required , including cost of materials, labour complete as per specifications. Specification No. KBS 11	Unit	3,886.00	310.88	4,196.88	12	50362.56
4	KSRB 11.15.3 : Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications.	Unit	1,180.00	94.40	1,274.40	4	5097.6
5	KSRB 11.17.1: Providing and fixing C.P brass towel rail 740mm length, 20mm dia with C.P brackets, fixed to wooden cleats with C.P brass screws including cost of materials, labour complete as per specifications.	Unit	783	62.64	845.64	4	3382.56
6	Providing plastic seat with approved 1st quality and make confirming to ISI specifications double flapped and fixing to english water closet with all fittings (Rate includes cost of materials,fixtures and conveyance to workspot).						
a	do- white	Pair	280	22.40	302.40	20	6048
7	Providing wash basin brackets of approved 1st qyuality and make confirming to ISI specifications and fixing for low down cistern as directed. Rate includes cost of materials and conveyance to work spot.	Pair	228	18.24	246.24	12	2954.88
8	Providing pedestal for wash basin of approved 1st qyuality and make confirming to ISI specifications and fixing for low down cistern as directed. Rate includes cost of materials and conveyance to work spot.	Each	875	70.00	945.00	12	11340
9	Providing and fixing 7.5 cms to 15.00 cms dia NP grating 100 mm dia.	Each	160.00	12.80	172.80	24	4147.2
10	Providing **stoneware gully trap** of approved quality and make fixing in M-15 and plastering with CM 1:3 wherever necessary. (Rate includes cost of all materials, fixtures and lead).						

2	KSRB 11-9.2 : Providing and fixing white vitreous china clay,flat back or half stall **urinal basin** of size 580x380x350mm in the range of two with 7.5 litres P.V.C automatic flushing cistern, C.I / M.S brackets ,standard flush pipe and C.P brass spreaders with brass unions and G.I clamps, C.I trap with outlet grating and other couplings in C.P brass, painting of fittings and brackets, cutting and making good the wall and floor wherever required , including cost of materials, labour complete as per specifications.Specification No. KBS 11	Unit	8,315.00	665.20	8,980.20	10	89802
3	KSRB 11.11.1 : Providing and fixing white vitreous china clay,flat back **wash basin** size 630x450mm with a pair of 15mm C.P brass pillar taps with C.I / M.S brackets ,32mm C.P brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required , including cost of materials, labour complete as per specifications. Specification No. KBS 11	Unit	3,886.00	310.88	4,196.88	12	50362.56
4	KSRB 11.15.3 : Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications.	Unit	1,180.00	94.40	1,274.40	4	5097.6
5	KSRB 11.17.1: Providing and fixing C.P brass towel rail 740mm length, 20mm dia with C.P brackets, fixed to wooden cleats with C.P brass screws including cost of materials, labour complete as per specifications.	Unit	783	62.64	845.64	4	3382.56
6	Providing plastic seat with approved 1st quality and make confirming to ISI specifications double flapped and fixing to english water closet with all fittings (Rate includes cost of materials,fixtures and conveyance to workspot).						
a	do- white	Pair	280	22.40	302.40	20	6048
7	Providing wash basin brackets of approved 1st qyuality and make confirming to ISI specifications and fixing for low down cistern as directed. Rate includes cost of materials and conveyance to work spot.	Pair	228	18.24	246.24	12	2954.88
8	Providing pedestal for wash basin of approved 1st qyuality and make confirming to ISI specifications and fixing for low down cistern as directed. Rate includes cost of materials and conveyance to work spot.	Each	875	70.00	945.00	12	11340
9	Providing and fixing 7.5 cms to 15.00 cms dia NP grating 100 mm dia.	Each	160.00	12.80	172.80	24	4147.2
10	Providing **stoneware gully trap** of approved quality and make fixing in M-15 and plastering with CM 1:3 wherever necessary. (Rate includes cost of all materials, fixtures and lead).						

b	do- 15x15cms	Each	270	21.60	291.60	4	1166.4
11	Providing and fixing to wall, ceiling and floor unplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc., and making good the wall, ceiling and floor for sanitary pipelines including cost of all materials,labour charges, HOM of acquirements and testing complete as per specifications.For Rain water pipe.						
a	- do - 110 mm dia	m	412	32.96	444.96	20	8899.2
b	do- 160mm dia	m	830	66.40	896.40	60	53784
			TOTAL:				347792.4

WATER SUPPLY WORK

Sl No	Description	Units	Rate(RS.)	Area Weightage 8%	Total Rate (RS.)	Quantity	Amount (RS.)
1	KSRB-13-6.1-2 : Providing and fixing in position brass bib cock of approved quality 20mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications.Specification no. KBS 13.2.2/ 13.3	Each	243	19.44	262.44	2	524.88
2	KSRB-13-6.2-2 : Providing and fixing in position brass stop cock of approved quality 20mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications.Specification no. KBS 13.2.2/ 13.3	Each	160	12.80	172.80	32	5529.6
3	KSRB-13-6.3-2 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 20mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications.Specification no. KBS 13.2.6/ 13.3	Each	409	32.72	441.72	2	883.44
a	KSRB 13.6.3-3: do- 25mm dia nominal bore	Each	590.00	47.20	637.20	1	637.2
b	KSRB-13-6.2-4 : –do– 32mm nominal bore	Each	950.00	76.00	1,026.00	3	3078
c	KSRB-13-6.3-5 : –do– 40mm nominal bore	Each	1270.00	101.60	1,371.60	2	2743.2
d	KSRB-13-6.3-7 : –do– 65mm nominal bore	Each	2560.00	204.80	2,764.80	1	2764.8
4	KSRB-13-6.6-1 : Providing and fixing unplasticised PVC connection pipe with brass union 15mm nominal bore 300 mm length of PVC connection including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS	Set	263.00	21.04	284.04	12	3408.48
5	KSRB-13-7.1-1 : Providing and fixing in position 40mm nominal bore non return valve vertical type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications.Specification no. KBS 13.2.10/ 13.13	Nos	1,435.00	114.80	1,549.80	2	3099.6
a	KSRB 13.9.2: do- 40mm dia	m	263	21.04	284.04	60	17042.4

b	KSRB 13.9.4: do- 63mm dia	m	348	27.84	375.84	5	1879.2
	CONSIDERED FOR DRAINAGE TO CHECK WITH KHB						
6	KSRB-13-11.1 : Providing and placing on terrace, polyethylene water storage tanks with manhole lid and suitable locking arrangements, making holes of suitable diameter for inlet, outlet and over flow pipes, including cost of all materials, labour, transport charges, HOM of equipments and testing complete as per specifications. (For 1000 Litre capacity) as per IS 12701 1996. Specification No. KBS 13.22	Each	8467	677.36	9,144.36	5	45721.8
7	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for not and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and good the walls etc.,)						
a	15mm nominal OD pipes	m	130.00	10.40	140.40	5	702
b	20mm nominal OD pipes	m	210	16.80	226.80	45	10206
c	25mm nominal OD pipes	m	250	20.00	270.00	40	10800
d	32mm nominal OD pipes	m	310	24.80	334.80	60	20088
			TOTAL:				129108.6
	SUMMARY:						
	DRAINAGE WORK						254119.68
	SANITARY WORK						347792.4
	WATER SUPPLY WORK						129108.6
	TOTAL:						
	NON SR ITEM						731020.68
	SANITARY FIXTURES						
1	Spplying ,Installing testing and commissioning **CP. Health faucet** (two in one) with flexible hose,CP Angle valve, wall flange, supporting hook with screws, fixing materials and sealant to all sides of wall flange complete.	Nos			1400	20	28000
2	supplying and Installing testing and commissioning **of approved make C P GRAB BAR 600 mm long ,** CP wall flanges, fixing materials, complete.	Nos			2100	2	4200
	TOTAL						
	SEWERAGE SYSTEM						**32200**

1	Supplying , installing, testing and commissioning U PVC **multi inlet floor trap** without CP grating including fittings required to connect the outlets from wash basin , kitchen sink or any other drain pipe conforming to IS with required supports with clamps in suspended piping , supporting the trap with clamps including anchor fasteners , nuts , bolts and washers all leads and lifts complete.						
	a) 75 mm dia outlet for floor trap	Nos			500	24	12000
3	Supplying,fabricating to the required length including support length and placing in position M S angle supports (to fix the watersupply and drainage lines) shafts with a coat of primer before erecting the clamps , fixed and aligned to level with anchor fasteners , bolts , nuts and washers , coat of primer and two coats of enamel paint after the ercetion of pipe lines with all leads and lifts complete.						
	in vertical shafts	Kgs			85	25	2125
	at terrace level	Kgs			85	10	850
	TOTAL						**14975**
	RAIN WATER SYSTEM						
1	Supplying and placing in position heavy duty P V C currah with frame of below mentioned sizes including jointing and fixing material complete.						
	a) 160 mm dia	Nos			1200	4	4800
	TOTAL						4800
	Internal Water Supply System - Domestic						
1	supplying , installing in position (by tieing to reinforcement or welding to reinforcement) fabricated GI puddle flanges of required dia meter as specified below , with 6mm thick MS plates of size 150 mm x150 mm for pipe sizes up to 50 mm and MS plate protruding 100mm on all sides of the pipe for diameter of pipe 65 mm and above , with two coats of anticorrossive primer with threading / suitable flanges towards the pump connection side / valve connection side , with all leads and lifts comkplete.						
	Note : puddle flanges with pipe and pipe size up to 200 mm dia in class C GI pipe and pipe size above 200 mm in class C MS pipe with hot dip galvanizing to be provided.						
	RAW WATER TANK						
	muncipal 32 mm dia	Nos			400	1	400
	tanker 80 mm dia	Nos			800	1	800
	over flow 100 mm dia	Nos			1100	1	1100

	Heavy duty manhole cover 600 x 600	Nos			7000	2	14000
	Air vent 80 mm dia	Nos			1000	1	1000
	pvc rungs	Nos			300	16	4800
	pvc conduit 25 mm dia	Nos			20	1	20
	outlet to oht 40 mm dia	Nos			600	1	600
2	Providing and constructing **water meter chamber** over a bed of P C C 1:4:8,in 200 mm thick solid block in C M 1:8, both internal and external plastering in C M 1:6, medium duty precast concrete cover with all leads and lifts, including curing complete.	Nos			12000	1	12000
	Size of chamber 750 X 750 x 600 mm clear						
3	Providing and constructing inspection chamber **(for bore well)** with first quality table molded bricks of standard size in C M 1:6 over a P C C bed of 1 4 8 of 100 mm thick, internal surface plastered smooth and externally finished rough including providing P C C for channeling and providing pre cast slab of 100 mm thick with frame and cover including curing all leads and lifts fixing in position fiber coated steps etc., complete.	Nos			12000	1	12000
4	Making necessary arrangements to obtain the permission for the connection of sewage line to the BWSSB main line and obtaining connection for water supply (deposits and other incidentals shall be borne by the client).	LS			50000	1	50000
	TOTAL						96720
	PUMP RAISING MAIN - DOMESTIC						
1	Supplying, installing, testing and commissioning approved make **submersible pump** made of C.I construction suitable for buildingapplication. Thequoted rate shall also include for providing necessary safety devices viz. dry runprotection, over load relays auto level controller with necessary cables etc., complete working on 3ph 440V,50Hz, three phase system						
	For pumping treated water from UG Sump to OHT						
	vertical type - pump						
	horizontal distance - 40 mtrs						
	Vertical distance - 15 mtrs						
	Duty of the Pump						
	3.0 lps at 40m head (1 W+ 1st.by = 1No set)	Set			50000	1	50000

	before supply of pump (applicable for all types of pumps related to phe) vendor to visit the site and consider the fittings and head as per site condition and then quote accordingly.						
	Make : Grundfoss / wilo / DP						
2	Supplying, Installing testing and commissioning approved make **water level controller** with cabling in P V C conduit (3 core & multi strand copper wire 1.5 sq mm) and automatic water level indicator digital type, indicating the level of water in percentage	Nos			8000	1	8000
	Length of cable	Rmt			90	50	4500
	Length of conduit	Rmt			40	50	2000
	TOTAL						64500
	SUMMARY						
1	SANITARY FIXTURES						32200
2	SEWERAGE SYSTEM						14975
3	RAIN WATER SYSTEM						4800
4	INTERNAL WATER SUPPLY SYSTEM (DOMESTIC)						96720
5	PUMP RAISING MAIN - DOMESTIC						64500
	TOTAL						213195
	GRAND TOTAL:						**944,216**

CERTIFICATE:

1) The work spot has been inspected and found to be necessary

2) The work spot comes under B.B.M.P

3) The provisions made in the estimate are necessary and minimum

4) The estimate is based on C.S.R of 2016-2017 and approved rates.

Assistant Engineer
Yelahanka Project
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